PERMIT FORMS
PURSUANT TO
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR PERMITS
FORM 7 APPLICATION

NEW SOURCE REVIEW PERMITS
and STATE OPERATING PERMITS

What pages do I fill out for my facility?

- All new sources and major modifications: 3
- All major stationary sources at undeveloped sites: 4
- All new and modified sources and State Operating Permits: 5, 6, 7
- All new and modified major sources: 23, 24, 25, 26, 27

In addition, complete the following pages:

- For boilers, external combustion units, turbines: 8, (17, 18 if applicable), 19, 20, 21, 22, 28
- For stationary combustion engines: 9, (17, 18 if applicable), 19, 20, 28
- For incinerators: 10, 17, 18, 19, 20, 21, 22, 28
- For surface coating operations: 11, 12, (17, 18 if applicable), 19, 20, 21, 22, 28
- For quarry operations: 11, 17, 18, 19, 20
- For VOC/Petroleum storage tanks: 13, 14, 19, 20, 21, 22, 28
- For loading racks and oil water separators: 15, 19, 20, 21, 22, 28
- For fumigation operations: 16
- For all other sources: 11, (17, 18, 21, 22 if applicable), 19, 20, 28

****NOTE:** ***The facility only has to fill out the applicable pages that apply.*** If any pages are unused, the facility does not need to submit the unused pages with the application.

Source-Specific Form 7 Applications

There are some source-specific Form 7 Applications available for these sources:
(check out the DEQ website at http://www.deq.virginia.gov/air/justforms.html)

- Asphalt plants (Form 7A)
- Crematories (Form 7B)
- Concrete Batch Plant (Form 7C)

Commonwealth of Virginia
Department of Environmental Quality

AIR PERMIT APPLICATION
CHECK ALL PAGES ATTACHED AND LIST ALL ATTACHED DOCUMENTS

1	Local Government Certification Form, Page 3	1	Proposed Permit Limits for GHGs on CO_2e Basis, Page 24
	Application Fee Form, Page 4	1	BAE for Criteria Pollutants, Page 25
1	Document Certification Form, Page 5	1	BAE for GHGs on Mass Basis, Page 26
1	General Information, Pages 6-7	1	BAE for GHGs on CO_2e Basis, Page 27
1	Fuel Burning Equipment, Page 8	1	Operating Periods, Page 28
	Stationary Internal Combustion Engines, Page 9		
	Incinerators, Page 10		ATTACHED DOCUMENTS:
4	Processing, Page 11	1	Map of Site Location
	Inks, Coatings, Stains, and Adhesives, Page 12	1	Facility Site Plan
	VOC/Petroleum Storage Tanks, Pages 13-14	1	Process Flow Diagram/Schematic
	Loading Rack and Oil-Water Separators, Page 15		MSDS or CPDS Sheets
	Fumigation Operations, Page 16	1	Estimated Emission Calculations
2	Air Pollution Control and Monitoring Equipment, Page 17		Stack Tests
1	Air Pollution Control/Supplemental Information, Page 18		Air Modeling Data
2	Stack Parameters and Fuel Data, Page 19		Confidential Information (see Instructions)
1	Proposed Permit Limits for Criteria Pollutants, Page 20	1	BACT Analysis
1	Proposed Permit Limits for Toxic Pollutants/HAPs, Page 21		
1	Proposed Permit Limits for Other Reg. Pollutants, Page 22		
1	Proposed Permit Limits for GHGs on Mass Basis, Page 23		

Check added form sheets above; also indicate the number of copies of each form in blank provided.

DOCUMENT CERTIFICATION FORM

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I certify that I understand that the existence of a permit under [Article 6 of the Regulations] does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.

SIGNATURE:		DATE:	
NAME:	James E. Bottom	REGISTRATION NO:	80504
TITLE:	Area Operations Manager	COMPANY:	ON Minerals
PHONE:	540-465-5161	ADDRESS:	1691 Oranda Rd
EMAIL:	James.bottom@carmeusena.com		Strasburg, VA 22657

References: Virginia Regulations for the Control and Abatement of Air Pollution (Regulations), 9 VAC 5-20-230B and 9 VAC 5-80-1140E.

GENERAL INFORMATION

Person Completing Form: David St. Clair, Regional Environmental Manager	Date: 9/24/13	Registration Number: 80504
Company and Division Name: Carmeuse Lime & Stone		
Mailing Address: P.O. Box 71 Strasburg, Virginia 22657		
Exact Source Location – Include Name of City (County) and Full Street Address or Directions: 508 Quarry Lane Clear Brook, Virginia		
Telephone Number: (540) 465 - 5161	No. of Employees:	Property Area at Site:
Person to Contact on Air Pollution Matters – Name and Title: David St. Clair, Regional Environmental Manager	Phone Number: (540) 465 - 6801 Fax: Email: David.Stclair@carmeusena.com	
Latitude and Longitude Coordinates **OR** UTM Coordinates of Facility: -78.08° Lat 39.25° Lon		

Reason(s) for Submission (Check all that apply):

☐ State Operating Permit — This permit is applied for pursuant to provisions of the Virginia Administrative Code, 9 VAC 5 Chapter 80, Article 5 (SOP)

☐ New Source

☒ Modification of a Source

☐ Relocation of a Source

This permit is applied for pursuant to the following provisions of the Virginia Administrative Code:

- ☐ 9 VAC 5 Chapter 80, Article 6 (Minor Sources)
- ☒ 9 VAC 5 Chapter 80, Article 8 (PSD Major Sources)
- ☐ 9 VAC 5 Chapter 80, Article 9 (Non-Attainment Major Sources)

☐ Amendment to a Permit Dated: _____ Permit Type: ☐ SOP (Art. 5) ☐ NSR (Art. 6)

Amendment Type:

- ☐ Administrative Amendment
- ☐ Minor Amendment
- ☐ Significant Amendment

This amendment is requested pursuant to the provisions of:

- ☐ 9 VAC 5-80-970 (SOP Adm.)
- ☐ 9 VAC 5-80-980 (SOP Minor)
- ☐ 9 VAC 5-80-990 (SOP Sig.)
- ☐ 9 VAC 5-80-1270 (NSR Adm.)
- ☐ 9 VAC 5-80-1280 (NSR Minor)
- ☐ 9 VAC 5-80-1290 (NSR. Sig.)

☐ Applicability Determination for an Exemption

☐ Other (specify): _____

Explanation of Permit Request (attach documents if needed):

Carmeuse Lime & Stone is proposing to upgrade a significant portion of the lime manufacturing process by adding new material handling equipment, removing several existing pieces of material handling equipment, shutting down the existing rotary lime kiln, and installing two new vertical lime kilns.

GENERAL INFORMATION (CONTINUED)

For Portable Plants:

Is this facility designed to be portable? ☐ Yes ☐ No

- If yes, is this facility already permitted as a portable plant? ☐ Yes ☐ No Permit Date: _____

If not permitted, is this an application to be permitted as a portable plant? ☐ Yes ☐ No

If permitted as a portable facility, is this a notification of relocation? ☐ Yes ☐ No

- Describe the new location or address (include a site map): _____

- Will the portable facility be co-located with another source? ☐ Yes ☐ No Reg. No. _____
- Will the portable facility be modified or reconstructed as a result of the relocation? ☐ Yes ☐ No
- Will there be any new emissions other than those associated with the relocation? ☐ Yes ☐ No
- Is the facility suitable for the area to which it will be located? (attach documentation) ☐ Yes ☐ No

Describe the products manufactured and/or services performed at this facility:

Limestone quarry, limestone products plant, and lime manufacturing facility

List the Standard Industrial Classification (SIC) Code(s) for the facility:

3	2	7	4																

List the North American Industry Classification System (NAICS) Code(s) for the facility:

3	2	7	4	1	0																		

List all the facilities in Virginia under common ownership or control by the owner of this facility:

Milestones: This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

Milestones*:	Starting Date:	Estimated Completion Date:
New Equipment Installation	January 2014	Varies
Modification of Existing Process or Equipment	January 2014	Varies
Start-up Dates	Varies	Varies

*For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion date for each phrase.

FUEL BURNING EQUIPMENT: (Boilers, Turbines, Kilns, and Other External Combustion Units)

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept. 2013	**Registration Number:** 80504

Unit Ref. No.	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Input Heat Capacity For Each Fuel (Million Btu/hr)	Type of Fuel	Type of Equip. (use Code A)	Usage (use Code B)	Requested Throughput* (hrs/yr OR fuel/yr)	Federal Regulations that Apply
LP-VK-1	Qualical Parallel Flow Regenerative Lime Kiln	TBD	2014	528 tons/day (lime)	Coke, coal, natural gas	19	2	157,000 ton/yr (lime)	PSD NESHAP Subpart AAAAA
LP-VK-2	Qualical Parallel Flow Regenerative Lime Kiln	TBD	2015	528 tons/day (lime)	Coke, coal, natural gas	19	2	157,000 ton/yr (lime)	PSD NESHAP Subpart AAAAA
HR-610	TBD	TBD	2015	3.5	Natural gas	18	4	8,760 hr/yr	PSD

☐ Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

Code A – Equipment

BOILER TYPE:
1. Pulverized Coal - Wet Bottom
2. Pulverized Coal - Dry Bottom
3. Pulverized Coal - Cyclone Furnace
4. Circulating Fluidized Bed
5. Spreader Stoke
6. Chain or Travelling Grate Stoker
7. Underfeed Stoker
8. Hand Fired Coal
9. Oil, Tangentially Fired
10. Oil, Horizontally Fired (except rotary cup)
11. Gas, Tangentially Fired
12. Gas, Horizontally Fired
13. Wood with Flyash Reinjection
14. Wood without Flyash Reinjection
15. Other (specify) _____

OTHER COMBUSTION UNITS:
16. Oven / Kiln
17. Rotary Kiln
18. Process Furnace
19. Other (specify) ____Vertical Kiln_____

Code B - Usage

1. Steam Production
2. Drying / Curing
3. Space Heating
4. Process Heat
5. Food Processing
6. Electrical Generation
7. Mechanical Work
8. Other (specify) _____

***Pick only one option for a requested throughput.**

NOTE: Dryers, kilns, and furnaces also have to fill out Page 11.

STATIONARY INTERNAL COMBUSTION ENGINES:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Output Brake Horsepower (bhp)	Output Electrical Power (kW)	Type of Fuel	Usage* (use Code C)	Requested Throughput** (hrs/yr OR fuel/yr)	Federal Regulations that Apply
EG-2	200 hp emergency engine, Cat D150-8	2013 (new)	2013 (new)	200	~150	Diesel	1	500 hr/yr	NSPS Subpart IIII MACT Subpart ZZZZ

☐ Estimated Emission Calculations Attached (include references of emission factors and manufacturer specifications per engine) and/or Stack Test Results if Available

Code C – Usage

1. Emergency Generator
2. Participates in Emergency Load Response Program
3. Non-Emergency Generator
4. Participates in Demand Response Program(s)
5. Other (specify) _____

***Can pick more than one option**
(i.e. 1 and 2 **OR** 3 and 4)

****Pick only one option for a requested throughput.**

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Company Name: Carmeuse Lime & Stone	Date: Revised Sept 2013	Registration Number: 80504

Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity (ton/hr)*	Requested Throughput*			Federal Regulations that Apply
						(ton/hr)	(ton/day)	(ton/yr)**	
LP-VK-1	Vertical Kiln	Qualical Parallel Flow Regenerative Lime Kiln	2013-4	2013-4	22	22		157,000	NESHAP Subpart AAAAA
LP-VK-2	Vertical Kiln	Qualical Parallel Flow Regenerative Lime Kiln	2013-4	2013-4	22	22		157,000	NESHAP Subpart AAAAA
Limestone Handling									
BC-129	Belt Conveyor	TBD	2013-4	2013-4	75	75		350,000	NSPS Subpart OOO
BC-200	Belt Conveyor	TBD	2013-4	2013-4	400	400		600,000	NSPS Subpart OOO
BC-220	Belt Conveyor	TBD	2013-4	2013-4	240	240		300,000 (1/2 total)	NSPS Subpart OOO
BC-230	Belt Conveyor	TBD	2013-4	2013-4	160	160		300,000 (1/2 total)	NSPS Subpart OOO
BC-320	Belt Conveyor	TBD	2013-4	2013-4	150	150		600,000	NSPS Subpart OOO
BC-344	Belt Conveyor	TBD	2013-4	2013-4	200	200		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
BC-346	Belt Conveyor	TBD	2013-4	2013-4	200	200		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
BC-900	Belt Conveyor	TBD	2013-4	2013-4	75	75		350,000	NSPS Subpart OOO
BC-901	Belt Conveyor	TBD	2013-4	2013-4	300	300		350,000	NSPS Subpart OOO
BC-902	Belt Conveyor	TBD	2013-4	2013-4	1,500	1,500		950,000	NSPS Subpart OOO
BC-903	Belt Conveyor	TBD	2013-4	2013-4	1,500	1,500		950,000	NSPS Subpart OOO
BC-904	Belt Conveyor	TBD	2013-4	2013-4	1,500	1,500		950,000	NSPS Subpart OOO
BC-905	Belt Conveyor	TBD	2013-4	2013-4	800	800		4,160,000	NSPS Subpart OOO
BC-906	Belt Conveyor	TBD	2013-4	2013-4	800	800		4,160,000	NSPS Subpart OOO
BC-915	Belt Conveyor	TBD	2013-4	2013-4	1,500	1,500		950,000	NSPS Subpart OOO
HOP-900	Dump Hopper	TBD	2013-4	2013-4	150 (ton)	1500 (ton)		950,000	
LB-332	Bin	TBD	2013-4	2013-4	120 (ton)	120 (ton)		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
LB-334	Bin	TBD	2013-4	2013-4	120 (ton)	120 (ton)		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
LB-900	Surge Bin	TBD	2013-4	2013-4	1 (ton)	1 (ton)		950,000	
RC-110	Roller Crusher	TBD	2013-4	2013-4	500	500		950,000	NSPS Subpart OOO
CR-900	Primary Crusher	TBD	2013-4	2013-4	1,500	1,500		950,000	NSPS Subpart OOO

[X] Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

*** Specify units for each operation in tons, pounds, gallons, etc., as applicable. For coating operations, the maximum rated capacity is the spray gun capacity.**

** 950,000 tons include kiln feed and milled limestone, 600,000 is kiln feed, 4,160,000 tons is aggregate plant.

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity (ton/hr)*	Requested Throughput*			Federal Regulations that Apply
						(ton/hr)	(ton/day)	(ton/yr)**	
SN-120	Screen	TBD	2013-4	2013-4	400	400		950,000	NSPS Subpart OOO
SN-210	Screen	TBD	2013-4	2013-4	400	400		600,000	NSPS Subpart OOO
SN-330	Screen	TBD	2013-4	2013-4	297	297		600,000	NSPS Subpart OOO
SN-900	Screen	TBD	2013-4	2013-4	500	500		950,000	NSPS Subpart OOO
SK-350	Skip Hoist	TBD	2013-4	2013-4	200	200		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
SK-360	Skip Hoist	TBD	2013-4	2013-4	200	200		600,000	NSPS Subpart OOO NESHAP Subpart AAAAA
LS-901	Loadout Spout, Reject Stone	TBD	2013-4	2013-4	150	150			NSPS Subpart OOO
Lime Handling									
BC-500	Belt Conveyor	TBD	2013-4	2013-4	100	100		314,000	
BC-525	Belt Conveyor	TBD	2013-4	2013-4	100	100		471,000	
BC-533	Belt Conveyor	TBD	2013-4	2013-4	100	100		314,000	
BC-570	Belt Conveyor	TBD	2013-4	2013-4	100	100		471,000	
BC-912	Belt Conveyor	TBD	2013-4	2013-4	325	325		471,000	
BC-913	Belt Conveyor	TBD	2013-4	2013-4	325	325		471,000	
BC-914	Belt Conveyor	TBD	2013-4	2013-4	325	325		471,000	
BC-917	Belt Conveyor	TBD	2013-4	2013-4	100	100		471,000	
BE-901	Bucket Elevator	TBD	2013-4	2013-4	100	100		471,000	
BE-902	Bucket Elevator	TBD	2013-4	2013-4	100	100		471,000	
CR-901	HSI Crusher	TBD	2013-4	2013-4	100	100		471,000	
LB-902	Reject Lime Bin	TBD	2013-4	2013-4	280 tons	280 tons		471,000	
LB-904	Loadout Weigh Bin	TBD	2013-4	2013-4	120 tons	120 tons		471,000	
LS-902	Loadout Spout	TBD	2013-4	2013-4	150	150		471,000	
LS-900	Loadout Spout	TBD	2013-4	2013-4	150	150		471,000	
LB-2303	Lime Storage Silo	TBD	2013-4	2013-4	2,200 tons	2,200 tons		471,000	
LB-2304	Lime Storage Silo	TBD	2013-4	2013-4	2,200 tons	2,200 tons		471,000	
RC-545	Roller Crusher	TBD	2013-4	2013-4	200	200		471,000	
RU-900	Railcar Unloader	TBD	2013-4	2013-4	400 coke	400 coke		471,000	

[X] Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

*** Specify units for each operation in tons, pounds, gallons, etc., as applicable. For coating operations, the maximum rated capacity is the spray gun capacity.**

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity (ton/hr)*	Requested Throughput*			Federal Regulations that Apply
						(ton/hr)	(ton/day)	(ton/yr)	
SN-901	Screen	TBD	2013-4	2013-4	200	200		471,000	
SN-902	Screen	TBD	2013-4	2013-4	200	200		471,000	
LB-903	Reject Stone Fines Bin	TBD	2013-4	2013-4	65 tons	65 tons		471,000	
LB-905	VKD Weigh Bin	TBD	2013-4	2013-4	1,800 pounds	1,800 pounds			
LB-906	VKD Weigh Bin	TBD	2013-4	2013-4	1,800 pounds	1,800 pounds			
Solid Fuel Handling									
CFR-615	Dynamic Classifier	TBD	2013-4	2013-4	7	7		52,560	
SC-903	Screw Conveyor	TBD	2013-4	2013-4	7	7		52,560	
BC-916	Belt Conveyor	TBD	2013-4	2013-4	400	400		52,560	
DB-1	Pressurized Solid Fuel Bins	TBD	2013-4	2013-4	7	7		52,560	
DB-2	Pressurized Solid Fuel Bins	TBD	2013-4	2013-4	7	7		52,560	
LB-901	Fuel Bin	TBD	2013-4	2013-4	50 tons	50 tons		52,560	

[X] Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

*** Specify units for each operation in tons, pounds, gallons, etc., as applicable. For coating operations, the maximum rated capacity is the spray gun capacity.**

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity (ton/hr)*	Requested Throughput*			Federal Regulations that Apply
						(ton/hr)	(ton/day)	(ton/yr)	
Modified Limestone Handling									
BC-3	Belt Conveyor				500	500		950,000	
BC-9	Belt Conveyor				400	400		950,000	
BC-130	Belt Conveyor				80	80		950,000	
BC-327	Belt Conveyor						1,000		NSPS Subpart OOO
Modified Lime Handling									
BC-2513	Belt Conveyor						500		
BC-6	Belt Conveyor						500		
BC-7	Belt Conveyor						500		
BC-8	Belt Conveyor						500		
BC-2514	Belt Conveyor						500		
BC-2313	Belt Conveyor						500		
BC-2342	Belt Conveyor						500		
LB-2301	Lime Storage Bin				2,200 tons				
LB-2302	Lime Storage Bin				2,200 tons				
Modified Solid Fuel Handling									
ML-900	Solid Fuel milling				7	7		52,560	
BC-2105	Belt Conveyor				100	100		52,560	
BC-2505	Belt Conveyor				100	100		52,560	
LB-907	Fuel Bin				85 tons	85 tons		52,560	

[X] Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

*** Specify units for each operation in tons, pounds, gallons, etc., as applicable. <u>For coating operations</u>, the maximum rated capacity is the spray gun capacity.**

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity (ton/hr)*	Requested Throughput*			Federal Regulations that Apply
						(ton/hr)	(ton/day)	(ton/yr)	
Unmodified Equipment									
LP-SB-3 North and South	Lime Storage Bins				600 tons (each)				
LS-C	Jeffrey Crusher				50				
LS-S	Midwestern Screen				60				
LS-CB-1	Belt Conveyor				150				
LS-CB-2	Belt Conveyor				150				
LS-CB-3	Belt Conveyor				150				
LS-SS-1	Storage Silo				30 tons				
LS-SS-2 through 6	Storage Silo				165 tons (each)				
LS-CB-4	Belt Conveyor				200				
LS-CB-5	Belt Conveyor				200				
LS-CB-6	Belt Conveyor				200				
LS-CB-7	Belt Conveyor				50				
SC-2	Screw Conveyor				150				
LS-1 through LS-3	Loadout Spouts				200				

[X] Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

*** Specify units for each operation in tons, pounds, gallons, etc., as applicable. For coating operations, the maximum rated capacity is the spray gun capacity.**

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

Company Name: Carmeuse Lime & Stone			**Date: Revised** Sept 2013			**Registration Number:** 80504
Unit Ref. No.	**Vent/ Stack No.**	**Device Ref. No.**	**Pollutant/ Parameter**	**Air Pollution Control Equipment**		**Monitoring Instrumentation**
				Manufacturer and Model No.	**Type (use Code N)**	**Percent Efficiency (%)**	**Specify Type, Measured Pollutant, and Recorder Used**
BC-500	DC-410	DC-410	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-917, BC-525, BE-901, BE-902, CR-901, RC-545, SN-901, and SN-902	DC-520	DC-520	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
LS-900 and LB-902, BC-533	DC-535	DC-535	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-500, BC-525 and BC-535	DC-555	DC-555	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-914, LB-904, LS-902	DC-900	DC-900	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
LB-903, LS-901, BC-327, BC-344, BC-346, LB-332, LB-334, SN-330	DC-906	DC-906	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-570, BC-2513, BC-2514, BC-6, LP-SB-3 North & South	DC-2533	DC-2533	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-912, BC-913, BC-2313, LS-C	DC-2532	DC-2532	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-2313, BC-2342	DC-2341	DC-2341	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
LP-VK-1	VK-1	DC VK-1	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	COMS or BLDS
LP-VK-2	VK-2	DC VK-2	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	COMS or BLDS
BC-2514, LB-2301 thru LB-2304	DC-2525	DC-2525	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
ML-900, CFR-615, HR-610	DC-630	DC-630	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
DB-1, DB-2, LB-901, SC-903	DC-907	DC-907	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-7, BC-8, BC-2342, LS-CB-1, LS-CB-2, LS-CB-3, LS-S, LS-SS1- through 6	DC-1	DC-1	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
LS-CB-4, LS-CB-5, LS-CB-6, LS-CB-7, LS-1, LS-2, LS-3	DC-2	DC-2	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	
BC-2505, LB-907	DC-2106	DC-2106	$PM/PM_{10}/PM_{2.5}$	TBD	9a	99%	

☐ Manufacturer Specifications Included

Code N – Type of Air Pollution Control Equipment

1. Settling Chamber
2. Cyclone
3. Multicyclone
4. Cyclone scrubber
5. Orifice scrubber
6. Mechanical scrubber
7. Venturi scrubber
   a. Fixed throat
   b. Variable throat
8. Mist eliminator
9. Filter
   a. Baghouse
   b. Other:_____
10. Electrostatic Precipitator
    a. Hot side
    b. Cold side
    c. High voltage
    d. Low voltage
    e. Single stage
    f. Two stage
    g. Other:_____
11. Catalytic Afterburner
12. Direct Flame Afterburner
13. Diesel Oxidation Catalyst (DOC)
14. Thermal Oxidizer
15. Regenerative Thermal Oxidizer (RTO)
16. Selective Catalytic Reduction (SCR)
17. Selective Non-Catalytic Reduction (SNCR)
    a. Packed tower
    b. Spray tower
    c. Tray tower
    d. Venturi
    e. Other:_____
18. Adsorber
    a. Activated carbon
    b. Molecular sieve
    c. Activated alumina
    d. Silica gel
    e. Other:_____
19. Condenser (specify)
20. Other: Wet Suppressions System_____

AIR POLLUTION CONTROL EQUIPMENT - SUPPLEMENTAL INFORMATION:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Device Ref. No.	Type (use Code N)	Liquid Flow Rate (gpm) (4, 5, 6, 7, 17 ,19)	Liquid Medium (4, 5, 6, 7, 17, 19)	Cleaning Method (9, 10, 17, 18)	Number of Fields (10)	Number of Sections (9, 10)	Air to Cloth Ratio (fpm) (9)	Filter Material (9)	Inlet Temp. (ºF)	Regeneration Method & Cycle Time (sec) (18)	Chamber Temp. (ºF) (11, 12, 14, 15)	Retention Time (sec) (11, 12, 14, 15)	Pressure Drop (inch H_2O) (3, 4, 5, 6, 7, 9, 17)
DC-410	9a			TBD		TBD	3.85:1	Membrane	150				TBD
DC-520	9a			TBD		TBD	3.6:1	Membrane	150				TBD
DC-535	9a			TBD		TBD	3.33:1	Membrane	150				TBD
DC-555	9a			TBD		TBD	3.44:1	Membrane	150				TBD
DC-900	9a			TBD		TBD	3.5:1	Membrane	150				TBD
DC-906	9a			TBD		TBD	3.5:1	Membrane	70				TBD
DC-2533	9a			TBD		TBD	3.44:1	Membrane	150				TBD
DC-2532	9a			TBD		TBD	3.5:1	Membrane	70				TBD
DC-2341	9a			TBD		TBD	3.5:1	Membrane	100				TBD
DCVK-1	9a			TBD		TBD	3.9:1	Membrane	248				TBD
DCVK-2	9a			TBD		TBD	3.9:1	Membrane	248				TBD
DC-2525	9a			TBD		TBD	3.5:1	Membrane	70				TBD
DC-630	9a			TBD		TBD	3.5:1	Membrane	150				TBD
DC-907	9a			TBD		TBD	3.5:1	Membrane	100				TBD
DC-1	9a			TBD		TBD	3.5:1	Membrane	70				TBD
DC-2	9a			TBD		TBD	3.5:1	Membrane	70				TBD
DC-2106	9a			TBD		TBD	3.5:1	Membrane	70				TBD

NOTE: Numbers listed in parenthesis in the columns above represent the Control Equipment in Code N below.

Code N – Type of Air Pollution Control Equipment

1. Settling Chamber
2. Cyclone
3. Multicyclone
4. Cyclone scrubber
5. Orifice scrubber
6. Mechanical scrubber
7. Venturi scrubber
   a. Fixed throat
   b. Variable throat
8. Mist eliminator
9. Filter
   a. Baghouse
   b. Other:_____
10. Electrostatic Precipitator
    a. Hot side
    b. Cold side
    c. High voltage
    d. Low voltage
    e. Single stage
    f. Two stage
    g. Other:_____
11. Catalytic Afterburner
12. Direct Flame Afterburner
13. Diesel Oxidation Catalyst (DOC)
14. Thermal Oxidizer
15. Regenerative Thermal Oxidizer (RTO)
16. Selective Catalytic Reduction (SCR)
17. Selective Non-Catalytic Reduction (SNCR)
    a. Packed tower
    b. Spray tower
    c. Tray tower
    d. Venturi
    e. Other:_____
18. Adsorber
    a. Activated carbon
    b. Molecular sieve
    c. Activated alumina
    d. Silica gel
    e. Other:_____
19. Condenser (specify)
20. Other: Wet Suppression System

STACK PARAMETERS AND FUEL DATA:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Vent/ Stack No.	Vent/Stack or Exhaust Data						Fuel(s) Data				
		Vent/Stack Config. (use Code O)	Vent/Stack Height (feet)	Exit Diameter (feet)	Exit Gas Velocity (ft/sec)	Exit Gas Flow Rate (acfm)	Exit Gas Temp. (ºF)	Type of Fuel	Heating Value* (Btu/____)	Max. Rated Burned/hr (specify units)	Max. Sulfur %	Max. Ash %
LP-VK-1	DCVK-1	5	200	4	65	48,000	248	Coke	24.80 MMBtu/ton		7	TBD
								Coal	10.20 MMBtu/ton		3	TBD
								Natural gas	1,020 Btu/SCF		TBD	TBD
LP-VK-2	DCVK-2	5	200	4	65	48,000	248	Coke	24.80 MMBtu/ton		7	TBD
								Coal	10.20 MMBtu/ton		3	TBD
								Natural gas	1,020 Btu/SCF		TBD	TBD
ML-900, CFR-615, HR-610	DC-630	5	110	1.9	58	9,500	150	Natural gas	1,020 Btu/SCF		TBD	TBD
BC-500	DC-410	5	50	1.9	67	11,500	150					
BC-917, BC-525, BE-901, BE-902, CR-901, RC-545, SN-901, and SN-902	DC-520	5	36	1.2	137	9,210	150					
BC-500, BC-525 and BC-535	DC-555	5	61	1.4	65	5,756	150					
LS-900 and LB-902, BC-533	DC-535	5	61	1.4	52	4,605	150					

Code O – Vent/Stack Configuration

1. Stack discharging downward, or nearly download
2. Equivalent stack representing a combination of multiple actual stacks
3. Gooseneck stack
4. Stack discharging in a horizontal direction
5. Stack with an unobstructed opening discharge in a vertical direction
6. Vertical stack with a weather cap or similar obstruction in exhaust system

*** Specify units for each heating value in Btus per unit of fuel.**

STACK PARAMETERS AND FUEL DATA:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Vent/ Stack No.	Vent/Stack or Exhaust Data						Fuel(s) Data				
		Vent/Stack Config. (use Code O)	Vent/Stack Height (feet)	Exit Diameter (feet)	Exit Gas Velocity (ft/sec)	Exit Gas Flow Rate (acfm)	Exit Gas Temp. (°F)	Type of Fuel	Heating Value* (Btu/gal)	Max. Rated Burned/hr (specify units)	Max. Sulfur %	Max. Ash %
BC-914, LB-904, LS-902	DC-900	5	47	0.8	61	2,000	150					
LB-903, LS-901, BC-327, BC-344, BC-346, LB-332, LB-334, SN-330	DC-906	5	160	2	80	15,000	70					
BC-570, BC-2513, BC-2514, BC-6, LP-SB-3 North & South	DC-2533	5	50	1.3	90	7,000	150					
BC-912, BC-913, BC-2313, LS-C	DC-2532	5	50	0.9	65	2,500	70					
BC-2313, BC-2342	DC-2341	5	40	1.3	48	4,000	100					
BC-2514, LB-2301 thru LB-2304	DC-2525	5	100	0.9	58	2,375	70					
EG-2	EG-2	5	10	0.3	257	1,100	920	No. 2	~137,000	200 hp	neg	neg
DB-1, DB-2, LB-901, SC-903	DC-907	5	80	1.3	51	4,227	100					
BC-7, BC-8, BC-2342, LS-CB-1, LS-CB-2, LS-CB-3, LS-S, LS-SS1- thru 6	DC-1	5	100	2	80	15,000	70					
LS-CB-4, LS-CB-5, LS-CB-6, LS-CB-7, LS-1, LS-2, LS-3	DC-2	5	100	2	80	15,000	70					
BC-2505, LB-907	DC-2106	5	80	1	93	4,000	70					

Code O – Vent/Stack Configuration

1. Stack discharging downward, or nearly download
2. Equivalent stack representing a combination of multiple actual stacks
3. Gooseneck stack
4. Stack discharging in a horizontal direction
5. Stack with an unobstructed opening discharge in a vertical direction
6. Vertical stack with a weather cap or similar obstruction in exhaust system

*** Specify units for each heating value in Btus per unit of fuel.**

PROPOSED PERMIT LIMITS FOR CRITERIA POLLUTANTS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Proposed Permit Limits for Criteria Pollutants															
	PM [a] (Particulate Matter)		**PM-10 [a,b]** (10 µM or smaller particulate matter)		**PM 2.5 [a,b]** (2.5 µM or smaller particulate matter)		**SO_2** (Sulfur Dioxide)		**NO_X** (Nitrogen Oxides)		**CO** (Carbon Monoxide)		**VOC [a]** (Volatile Organic Compounds)		**Pb** (Lead)	
	lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
		See Appendix B														
TOTAL:																

X Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

[a] PM, PM-10, PM 2.5, and VOC should also be split up by component and reported under the Proposed Permit Limits for Toxic Pollutants/HAPs.

[b] PM-10 and PM 2.5 includes filterable and condensable.

PROPOSED PERMIT LIMITS FOR TOXIC POLLUTANTS/HAPS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	**Proposed Permit Limits for Toxic/HAP Pollutants***															
	HAP Name: CAS #:		**HAP Name: CAS #:**		**HAP Name: CAS #:**		**HAP Name: CAS #:**		**HAP Name: CAS #:**		**HAP Name: CAS #:**		**HAP Name: CAS #:**		**HAP Name: CAS #:**	
	lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
		See Appendix B														
TOTAL:																

[X] Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

*** Specify the name of the toxic pollutant/HAP for each Unit Ref. No. along with the respective CAS Number**. Toxic Pollutant means a pollutant on the designated list in the Form 7 Instructions document. Particulate matter and volatile organic compounds are not toxic pollutants as generic classes of substances, but individual substances within these classes may be toxic pollutants because their toxic properties or because a TLV (tm) has been established.

PROPOSED PERMIT LIMITS FOR OTHER REGULATED POLLUTANTS:

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	**Proposed Permit Limits for Other Regulated Pollutants***															
	Pollutant Name:		**Pollutant Name:**		**Pollutant Name:**		**Pollutant Name:**		**Pollutant Name:**		**Pollutant Name:**		**Pollutant Name:**		**Pollutant Name:**	
	lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
		See Appendix B														
TOTAL:																

[X] Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

*** Other Regulated Pollutant** include Fluorides, Sulfuric Acid Mist, Hydrogen Sulfide (H_2S), Total Reduced Sulfur (including H_2S), Reduced Sulfur Compounds (including H_2S), Municipal Waste Combustor Organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans), Municipal Waste Combustor Metals (measured as particulate matter), Municipal Waste Combustor Acid Gases (measured as the sum of SO_2 and HCl), and Municipal Solid Waste Landfill Emissions (measured as nonmethane organic compounds).

PROPOSED PERMIT LIMITS FOR GREENHOUSE GASES (GHGs) ON MASS BASIS: FOR PSD MAJOR SOURCES ONLY

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Proposed Permit Limits for GHG Pollutants on Mass Basis													
	CO_2 (Carbon Dioxide)		**N_2O (Nitrous Oxide)**		**CH_4 (Methane)**		**HFCs (Hydrofluoro-carbons)**		**PFCs (Perfluoro-carbons)**		**SF_6 (Sulfur Hexafluoride)**		**Total GHGs**	
	lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
		See Appendix B												
TOTAL:														

[X] Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

PROPOSED PERMIT LIMITS FOR GREENHOUSE GASES (GHGs) ON CO_2 EQUIVALENT EMISSIONS (CO_2e) BASIS: <u>FOR PSD MAJOR SOURCES ONLY</u>

Company Name: Carmeuse Lime & Stone	**Date:** **Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Proposed Permit Limits for GHG Pollutants on CO_2 Equivalent Basis													
	CO_2 (Carbon Dioxide)		**N_2O (Nitrous Oxide)**		**CH_4 (Methane)**		**HFCs (Hydrofluoro-carbons)**		**PFCs (Perfluoro-carbons)**		**SF_6 (Sulfur Hexafluoride)**		**Total GHGs**	
	lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
		See Appendix B												
TOTAL:														

[X] Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

BASELINE ACTUAL EMISSIONS (BAE) FOR CRITERIA POLLUTANTS: FOR PSD OR MAJOR NONATTAINMENT SOURCES ONLY

Company Name: Carmeuse Lime & Stone	**Date:** **Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Average Actual Annual Emissions to the Atmosphere of Criteria Pollutants for the Period: _____, 20___ to _____, 20___							
	PM (Particulate Matter)	**PM-10*** (10 µM or smaller particulate matter)	**PM 2.5*** (2.5 µM or smaller particulate matter)	**SO_2** (Sulfur Dioxide)	**NO_X** (Nitrogen Oxides)	**CO** (Carbon Monoxide)	**VOC** (Volatile Organic Compounds)	**Pb** (Lead)
	tons/yr	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**
See Appendix B								
TOTAL:								

[X] Background Documentation Attached (totals and per Unit Ref. No.)

*** PM-10 and PM 2.5 includes filterable and condensable.**

BASELINE ACTUAL EMISSIONS (BAE) FOR GREENHOUSE GASES (GHGs) POLLUTANT EMISSIONS ON MASS BASIS: FOR PSD MAJOR SOURCES

ONLY

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Average Actual Annual Emissions to the Atmosphere of GHGs for the Period: _____, 20___ to _____, 20___					
	CO_2 (Carbon Dioxide)	**N_2O (Nitrous Oxide)**	**CH_4 (Methane)**	**HFCs (Hydrofluorocarbons)**	**PFCs (Perfluorocarbons)**	**SF_6 (Sulfur Hexafluoride)**
	tons/yr	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**
See Appendix B						
TOTAL:						

[X] Background Documentation Attached (totals and per Unit Ref. No.)

BASELINE ACTUAL EMISSIONS (BAE) FOR GREENHOUSE GASES (GHGs) POLLUTANT EMISSIONS ON CO_2 EQUIVALENT EMISSIONS (CO_2e)

BASIS: FOR PSD MAJOR SOURCES ONLY

Company Name: Carmeuse Lime & Stone	**Date: Revised** Sept 2013	**Registration Number:** 80504

Unit Ref. No.	Average Actual Annual Emissions to the Atmosphere of GHGs for the Period: _____, 20___ to _____, 20___					
	CO_2 (Carbon Dioxide)	**N_2O (Nitrous Oxide)**	**CH_4 (Methane)**	**HFCs (Hydrofluorocarbons)**	**PFCs (Perfluorocarbons)**	**SF_6 (Sulfur Hexafluoride)**
	tons/yr	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**	**tons/yr**
See Appendix B						
TOTAL:						

[X] Background Documentation Attached (totals and per Unit Ref. No.)

OPERATING PERIODS:

Company Name: Carmeuse Lime & Stone	Date: Revised Sept 2013	Registration Number: 80504

Unit Ref. No.	Percent Annual Use/Throughput by Season				Normal Process/Equipment Operating Schedule			Maximum Process/Equipment Operating Schedule		
	December / February	March / May	June / August	September / November	Hours per Day	Days per Week	Weeks per Year	Hours per Day	Days per Week	Weeks per Year
Facility -Wide	25%	25%	25%	25%	24	7	52	24	7	52

Maximum Facility Operating Schedule 8,760 hrs/yr		
Hours per Day	Days per Week	Weeks per Year
24	7	52